



MECABLITZ 34 AF-3 P

Operating instructions

Foreword

Dear Customer,

We thank you for your confidence in our **mecablitz MB 34 AF-3P**.

The MB 34 AF-3P flashgun has been especially designed for Pentax AF system cameras. IMPORTANT: Never mount the flashgun in the accessory shoe of any other system camera, otherwise the flashgun's foot or the camera's accessory shoe can be destroyed! The dedicated contacts in the foot of the MB 34 AF-3P only support the controlling commands of Pentax AF system cameras.

The following pages give details for the correct operation of the mecablitz flashgun and summarize its fields of application.

Please read these operating instructions carefully, even if, at first sight, some points may not appear to be of interest. Our design work placed particular value on ensuring that operation of the mecablitz is as simple as possible, but it should be noted that the system cameras for which the flashgun is intended offer a great diversity of capabilities.

We wish you much pleasure with your new **Metz flashgun** in conjunction with a **Pentax AF system camera** to light up the darkest points, and for creative flash lighting.

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1. Safety instructions

- **NEVER** fire a flash in the immediate vicinity of the eyes! Flash fired directly in front of the eyes of a person or animal can damage the retina and lead to severe visual disorders - even blindness!
- Spent batteries should be immediately removed. Chemicals leaking out of spent batteries will damage the flashgun.
- Do not short-circuit batteries! **DANGER OF EXPLOSION!**
- Batteries should not be exposed to excessive heat, for instance sunshine, fire and the like!
- **NEVER** throw spent batteries in a fire!
- Do not expose the flashgun to dripping or splashing water!
- Protect the flashgun against excessive heat and high humidity levels! Do not keep the flashgun in the glove compartment of a car!
- In the event of flash shots with full light output observe an interval of at least 3 minutes after a series of 20 flashes. This will protect the flashgun against overload.
- **NEVER** place material that is impervious to light in front of, or directly on, the reflector screen. The reflector screen must be perfectly clean when a flash is fired. The high energy of the flash light will burn the material or damage the screen if this is not observed!
- **NEVER** dismantle the flashgun! **DANGER: HIGH VOLTAGE!** There are no components inside the flashgun that can be repaired by a layperson.

Disposal of batteries

Do not dispose of spent batteries with domestic rubbish.

Please return spent batteries to collecting points should they exist in your country!

2. Preparing the mecablitz for use

2.1 Power supply

The flashgun can only be operated with 2 CR2-type lithium batteries. This type of battery can be stored for many years with practically no loss of energy, thus making it ideal for occasional amateur flash photography.

☞ Batteries have become discharged or spent when recycling takes more than 60 seconds. The batteries should be removed from the mecablitz if the flashgun is not going to be used for a prolonged period.

2.2 Loading and exchanging batteries

- Turn off the flashgun with the main switch.
- Press the unlocking catch, slide the battery compartment lid to the right and fold open (see fig. 1).
- Insert the batteries according to the indicated battery symbols.

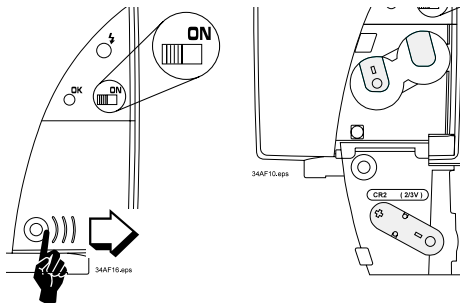



Fig. 1: Unlocking and exchanging batteries

The supplied lithium batteries are expendables and, as such, are not subject to our warranty provisions.

After the batteries have been inserted, fold down the battery compartment lid, and push to the left until it engages audible with the unlocking catch.

2. Preparing the mecablitz for use

 When loading the batteries ensure correct polarity. Incorrectly loaded batteries can destroy the flashgun! All batteries must be of the same make and have the same charge level. Exhausted batteries must not be thrown into the dustbin! Contribute to the protection of the environment and discard exhausted batteries at the appropriate disposal points.

2.3 Automatic flashgun switch-off

To avoid accidental battery discharge the flashgun automatically switches itself off to save power approximately 8 minutes after

- the flashgun was switched on
- the last flash was fired
- tripping the camera release, or
- switching on the camera light metering system.

The green flash-ready indicator is turned off.

To turn on the mecablitz again switch the main switch OFF and then ON. The flashgun should always be turned off if it is not being used.

2.4 Mounting/Removing the flashgun

Mounting:

- Turn off the mecablitz.
- Turn the clamping nut upwards against the case of the flashgun.
- Slide the mecablitz foot completely into the camera's accessory shoe.
- Turn the clamping nut downwards against the camera body, thereby securing the flash unit.

Removing:

- Switch off the flash unit before it is removed.
- Turn the clamping nut upwards against the case of the flashgun and remove the flash unit from the camera.

3. Setting the mecablitz into operation

3.1 Preconditions

The mecablitz must only be used with TTL flash controlled autofocus cameras!

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The sensor of TTL flash controlled cameras measures the light reaching the film through the camera lens and instantly cuts out the flash when the film has been correctly exposed. Please refer to the camera's operating instructions to find out whether your camera features this function.

A full-power flash is fired if the camera does not feature TTL flash control!

In other words: Without TTL flash control, the mecablitz fires an unmeasured flash at maximum output.

The camera's integrated flash may be additionally used only if it can be completely folded out into its operating position.

An incompletely folded out camera flash unit can be damaged when the shutter release is tripped.

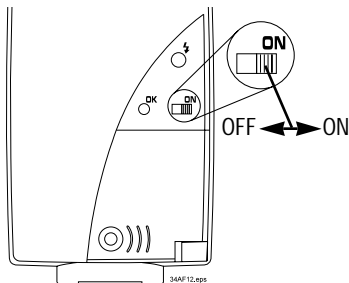


Fig. 3: Switching the flashgun on and off

3.2 Switching the flashgun on and off


Set the main switch in the ON position to turn on the flashgun. The green flash-ready indicator lights up to indicate flash readiness.

Set the main switch in the OFF position to turn off the flashgun.

4. Flashgun instructions to the camera

The mecablitz transmits different signals and messages to the camera when it is connected to the camera and is switched on.

4.1 Flash-ready indication

The green light  on the mecablitz illuminates when the flash capacitor is fully primed, thereby indicating flash readiness. This means that flash can be used for the next exposure. The flash readiness signal is transmitted to the camera where it is indicated by a corresponding display in the camera's viewfinder. Depending on the selected operating mode, the camera is changed to flash sync speed when flash readiness is reached. The flash will not be fired if the shutter is released before the flash ready light illuminates with the result that the exposure may be incorrect if the camera control circuit has already changed over to flash sync speed. Please refer to the camera's operating instructions for further details.

4.2 Automatic flash sync speed control

Flash readiness has the following effect on system cameras:

Camera mode: Effect:

Programmed auto exposure mode [P]:

Camera changes to 1/30 - 1/250 sec. flash sync speed, depending on camera model.

Aperture priority mode [Av]: As in [P]

Shutter priority mode [Tv]:

Shutter speeds can be set on the camera that equal or are slower than the sync speed.

Manual mode [M]: As in [Tv]

Note: *If (independent of the operating mode) a shutter speed faster than the flash sync speed is set on the camera, the camera will automatically change to flash sync speed when flash readiness is reached.*

Refer to the camera's operating instructions for details.

4. Flashgun instructions to the camera

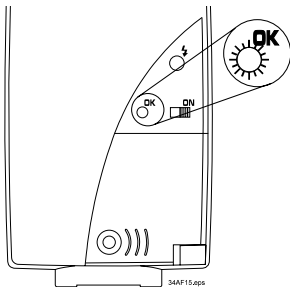


Fig. 4: Exposure o.k.

4.3 Correct-exposure indication (see fig. 4)

The red correct exposure light briefly illuminates when flash exposure was correct. At the same time the mecablitz sends an o.k. signal to the camera for display in the viewfinder.

Please refer to the camera's operating instructions for further details.

4.4 Information displayed in camera viewfinder when flash unit is switched on

Displays in viewfinder prior to shutter release	Meaning
⚡ not illuminated or blinks slowly	Flash unit not yet ready for firing
⚡ permanently illuminated	Flash unit is ready for firing

Warning with SF1/SFx: ⚡ is illuminated in the camera's viewfinder but the flash is not triggered when the shutter is tripped. The camera has activated the triggering lock because the ambient light is too bright.

Displays in viewfinder prior to shutter release	Meaning
⚡ blinks quickly	Flash was sufficient for correct exposure
⚡ not illuminated or blinks slowly	Flash was insufficient. Select wider f/stop or shorten distance.

5. TTL flash control

The mecablitz receives its information exclusively from the connected TTL-controlled AF-camera.

Exposure measurement in TTL mode (TTL = through-the-lens) is completed by the camera's sensor. This sensor measures the light reaching the film through the camera lens. An electronic control circuit within the camera transmits a stop signal to the flashgun as soon as the film has been exposed by the correct amount of light; the flash is then instantly cut out.

The advantage of the TTL mode is that all factors influencing the exposure of the film (such as filters, change of aperture or variable aperture zooms) are taken into account. You need not worry about adjustment of the light output. The camera's electronic system automatically defines the required amount of light. You can also utilize various metering facilities (e.g. spot, matrix or centre-weighted overall readings) offered by some cameras.

The table on page 33 gives the maximum range for the selected aperture. The minimum lighting distance is approx. 15% of the maximum threshold range.



If the actual distance is shorter than the minimum lighting distance, then this may result in overexposure.

The speed of films to be exposed under TTL flash control must be between ISO 25/15 and ISO 1000/31°. Correct exposures cannot be guaranteed with other film speeds.**

A strip of film must be loaded in the camera if tests are to be conducted in TTL flash mode. The effective flash range can only be checked by the correct-exposure display (o.k.) if the flash is triggered by the camera and not with the manual release on the flashgun!

* With automatic film speed setting (DX): ISO 32/16°

6. Flash in the individual camera modes

If the Mecablitz is switched on and ready for firing, a flash will be fired each time the camera's shutter is released. The amount of light is controlled by TTL.

Triggering lock (only SF1 and SFx)

On the Pentax SFx and SF1 cameras, the flash will not be fired when the prevailing light is sufficient for an exposure in normal mode. The exposure is then completed with the shutter speed indicated in the display field.

If you intend to take a shot with a shutter speed faster than e.g. 1/250 sec. (depending on the camera model) you must switch off the flashgun.

Refer to the camera's operating instructions for details.

7. Autofocus measuring flash

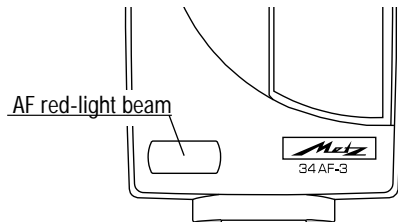


Fig. 5: AF red-light beam

The integrated AF red-light beam of the Mecablitz supports the automatic focusing of autofocus TTL cameras. When the prevailing light is insufficient for automatic focusing, the Mecablitz will project a pattern of red vertical stripes onto the subject as soon as the camera's shutter release is lightly touched. The camera's autofocus system then focuses the picture by this striped pattern.

7. Autofocus measuring flash

Notes:

- The AF measuring flash is only supported in the camera's "SINGLE AF" mode.
- When the camera's autofocus system is on, the electronic circuit will automatically activate the autofocus measuring flash whenever the prevailing light is insufficient for the exposure.
- The range of the autofocus measuring flash depends on the speed of the lens (maximum aperture)! With an f/1.8 standard lens of 50 mm focal length, the range is approx. 6-10 m (depending on the sensitivity of the camera's AF sensor).
- Due to parallax between camera lens and AF measuring flash, a minimum distance of 1 m to the subject is necessary. The AF measuring flash will not cover the subject if the shooting distance is less than 1 m. In such instances ensure a higher ambient light level.



Low-speed lenses, e.g. with an aperture of f/5.6 or f/8 (such as zoom lenses), **significantly restrict the range of the autofocus measuring flash!**

- The AF measuring flash is not activated in the camera's continuous focusing mode or when the autofocus system is switched off.

8. Flash techniques and flash functions



Fig. 6: Fill-in flash in daylight (left without, right with fill-in flash)


8.1 Fill-in flash

When in the "Program" [P] camera mode, the camera's metering system will automatically control the shutter speed/aperture combination so that use of the mecablitz will soften the shadows and produce a balanced exposure when shooting against the light. However the camera may also measure sufficient ambient light and activate the triggering lock (see page.28). Please observe the corresponding displays in the camera's viewfinder. For details refer to the camera's operating instructions.

Fill-in flash in daylight will soften harsh shadows and diminish the contrast, thereby producing a more balanced exposure when shooting against the light. The camera's computer-controlled metering system automatically selects the shutter speed, working aperture and light output in such a manner that both the main subject in the foreground as well as the background are uniformly exposed.

8.2 Exposure correction

Various cameras enable the user to influence the TTL exposure control. Accordingly, the camera's exposure settings can be corrected by up to ± 3 apertures (in half f-stop settings).

 **PLEASE NOTE: Do not forget to switch off this function when it is no longer required!**

Please refer to the camera's operating instructions for further details.

9. Lighting and attachments

Your mecablitz provides full and even illumination of normal 24 x 36 mm negatives when using lenses of 35 mm focal length and longer.

A wide-angle diffuser is supplied with the flash-gun to increase the coverage if you wish to use a 28 mm wide-angle lens.

A telephoto attachment (identified with a "T") is included for telephoto lenses of 85 mm focal length onwards.

Please note that use of the wide-angle diffuser diminishes the effective range of the flash, whereas the telephoto attachment increases it.

Mounting and removing the attachments

The attachment is swivelled into the bayonet mount (see fig. 7). Turn the attachment clockwise and insert the guiding edge into the case gap.

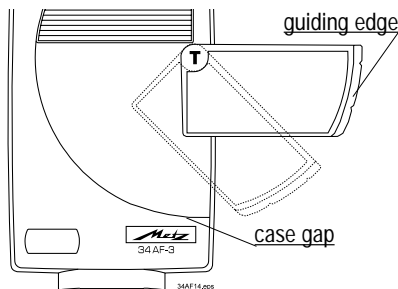


Fig. 7: Mounting and removing the attachments

To remove turn the attachment beyond the retaining spring (see fig.) and withdraw the attachment.

10. Care and maintenance - Troubleshooting

Remove grime and dust with a soft, dry cloth. Do not use cleaning agents as these could damage the plastic parts.

Forming the flash capacitor

The flash capacitor incorporated in the flashgun undergoes a physical change when the flashgun is not switched on for prolonged periods. For this reason it is necessary to switch on the flashgun for approx. 10 minutes every 3 months and to fire a few flashes. The batteries must supply sufficient power to light up the flash-ready light within one minute after the flashgun was switched on.

Manual firing button

An uncontrolled flash can be fired with the manual firing button (see fig. 8)

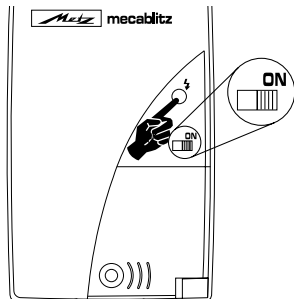


Fig. 8: Manually firing button

Troubleshooting:

If the flashgun does not work as it should in the individual modes, then proceed as follows:

- Switch off the flashgun with the main switch.
- Remove the rechargeable or dry-cell batteries for a brief period, and then load them again.

11. Technical data

Guide number ISO 100/21°: 34 (with telephoto attachment)
28 (without attachment)
20 (with wide-angle diffuser)

Lighting for 35mm camera from 35 mm focal length onwards, with wide-angle attachment from 24 mm, and with telephoto attachment from 85 mm focal length onwards.

Colour temperature: approx. 5600 °K

Synchronization: Low-voltage IGBT firing

Flash duration: 1/250 s ... 1/45000 s

Number of flashes: Flash recycling time:
ca. 100 ca. 6 s at full light output

Lighting: Rectangular

Without attachment: horiz. approx. 56°, vertical approx. 40°

With W-diffuser: horiz. approx. 75°, vertical approx. 55°

With T-attachment: horiz. approx. 25°, vertical approx. 18°

Weight: approx. 160 g

Dimensions: 61 mm x 102 mm x 35 mm

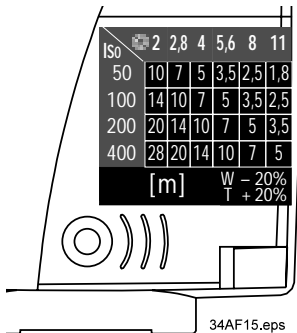
Items delivered:

Flashgun, attachments (W-diffuser/T = telephoto attachment), Operating Instructions, 2 batteries CR2.

ISO	1,4			2			2,8			4			5,6			8			11			16		
	W	N	T	W	N	T	W	N	T	W	N	T	W	N	T	W	N	T	W	N	T	W	N	T
25/15°	8	10	12	5,5	7	8,5	4	5	6	2,8	3,5	4,2	2	2,5	3	1,4	1,8	2,1	1	1,2	1,4	0,7	0,9	1
50/18°	11	14	17	8	10	12	5,5	7	8,5	4	5	6	2,8	3,5	4,2	2	2,5	3	1,4	1,8	2,1	1	1,2	1,4
100/21°	16	20	24	11	14	17	8	10	12	5,5	7	8,5	4	5	6	2,8	3,5	4,2	2	2,5	3	1,4	1,8	2,1
200/24°	22	28	34	16	20	24	11	14	17	8	10	12	5,5	7	8,5	4	5	6	2,8	3,5	4,2	2	2,5	3
400/27°	32	40	48	22	28	34	16	20	24	11	14	17	8	10	12	5,5	7	8,5	4	5	6	2,8	3,5	4,2
800/30°	45	56	67	32	40	48	22	28	34	16	20	24	11	14	17	8	10	12	5,5	7	8,5	4	5	6
max. distance in m																								

Table for max. lighting distance

Lighting distances



ISO	2	2,8	4	5,6	8	11
50	10	7	5	3,5	2,5	1,8
100	14	10	7	5	3,5	2,5
200	20	14	10	7	5	3,5
400	28	20	14	10	7	5

[m] W - 20%
T + 20%

34AF15.eps

This table indicates a section of the most important maximum lighting distances in different ISO/aperture combinations.

The sticker can be applied to the back of the flashgun.

Example:

Film speed ISO 100, camera aperture f5.6:

The table indicates a maximum distance of 5 m.

The minimum lighting distance is 15% out of 5 m which equals approx. 0.75 m.